

WHAT IS CLAIMED IS:

1. A Coriolis mass flow meter having two parallel flow tubes, an entry-side manifold that branches a fluid being measured from an inlet port into said two flow tubes, an exit-side manifold that converges flows of said fluid being measured flowing in said two flow tubes into an outlet port to discharge said fluid being measured, a drive unit for driving
5 and resonating a flow tube with another flow tube at mutually opposite phases, and a pair of oscillation sensors installed at locations horizontally symmetrical with respect to the installation location of said drive unit for sensing a phase difference proportional to a Coriolis force, said meter comprising;

10 said two flow tubes being formed into an arch shape that is bent in only one direction;
and
said entry-side and exit-side manifolds being smoothly bent from an inlet of said entry-side manifold and an outlet of said exit-side manifold to joints connecting to said two flow tubes, and connected to said flow tubes at said joints at a predetermined rise
15 angle in the same direction as said flow tubes.

2. A Coriolis mass flow meter as set forth in Claim 1 further comprising a sealed pressure-resistant case of a cylindrical shape in axis direction, with openings of the cylindrical portion thereof closed by end plates, wherein said entry-side and exit-side manifolds are installed at corners of said cylindrical portion and passed through said
20 corners.

3. A Coriolis mass flow meter as set forth in Claim 1 wherein said entry-side and exit-side manifolds have a pair of integrally formed disc-shaped flanges, to which both ends of said pressure-resistant case are fixedly fitted; the cross-sectional shape of said pressure-resistant case being an oval shape with the major axis oriented in the curved
25 direction of said flow tubes, with the length of said major axis smoothly and gradually

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reduced from the axial central part thereof to both ends thereof into a substantially circular shape over a predetermined length near both ends.

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4. A Coriolis mass flow meter as set forth in Claim 3 further comprising a temperature sensor provided on said pressure-resistant case for compensating the thermal effects of a distance between fixed ends on both sides of said flow tubes, and a
- 5 temperature sensor provided near said joints connecting said flow tubes to said manifolds for compensating the thermal effects of the rigidity of said flow tubes.

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